Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1642BJF

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	DEC 21	IPC search and display fields enhanced in CA/CAplus with the IPC reform
NEWS 4	DEC 23	New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/ USPAT2
NEWS 5	JAN 13	IPC 8 searching in IFIPAT, IFIUDB, and IFICDB
NEWS 6	JAN 13	New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to INPADOC
NEWS 7	JAN 17	Pre-1988 INPI data added to MARPAT
NEWS 8	JAN 17	IPC 8 in the WPI family of databases including WPIFV
NEWS 9	JAN 30	Saved answer limit increased
NEWS 10	JAN 31	Monthly current-awareness alert (SDI) frequency added to TULSA
NEWS 11	FEB 21	STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results
NEWS 12	FEB 22	Status of current WO (PCT) information on STN
NEWS 13	FEB 22	The IPC thesaurus added to additional patent databases on STN
NEWS 14	FEB 22	Updates in EPFULL; IPC 8 enhancements added
NEWS 15	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS 16	FEB 28	MEDLINE/LMEDLINE reload improves functionality
NEWS 17	FEB 28	TOXCENTER reloaded with enhancements
NEWS 18	FEB 28	REGISTRY/ZREGISTRY enhanced with more experimental spectral property data
NEWS 19	MAR 01	INSPEC reloaded and enhanced
NEWS 20	MAR 03	Updates in PATDPA; addition of IPC 8 data without attributes
NEWS 21	MAR 08	X.25 communication option no longer available after June 2006
NEWS 22	MAR 22	EMBASE is now updated on a daily basis

NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005. V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT http://download.cas.org/express/v8.0-Discover/

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

```
FILE 'HOME' ENTERED AT 11:09:40 ON 29 MAR 2006

=> file medline
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'MEDLINE' ENTERED AT 11:09:50 ON 29 MAR 2006

 FILE LAST UPDATED: 28 MAR 2006 (20060328/UP).  FILE COVERS 1950 TO DATE.

 On December 11, 2005, the 2006 MeSH terms were loaded.

 The MEDLINE reload for 2006 is now (26 Feb.) available.  For details
 on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>).
 See also:

    http://www.nlm.nih.gov/mesh/
    http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

 OLDMEDLINE is covered back to 1950.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2006 vocabulary.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s (bismuth () 213) or (213 () bismuth) or (213bi)
          5212 BISMUTH
          9531 213
            28 BISMUTH (W) 213
          9531 213
          5212 BISMUTH
             0 213 (W) BISMUTH
            59 213BI
L1          79 (BISMUTH (W) 213) OR (213 (W) BISMUTH) OR (213BI)

=> s nephrotoxi?
L2       12258 NEPHROTOXI?

=> s l2 and l1
L3           1 L2 AND L1

=> d ibib

L3   ANSWER 1 OF 1     MEDLINE on STN
ACCESSION NUMBER:   2006080570     IN-PROCESS
DOCUMENT NUMBER:    PubMed ID: 16467104
TITLE:              213Bi-[DOTA0, Tyr3]octreotide peptide receptor
                    radionuclide therapy of pancreatic tumors in a preclinical
                    animal model.
AUTHOR:             Norenberg Jeffrey P; Krenning Boudewijn J; Konings Inge R H
                    M; Kusewitt Donna F; Nayak Tapan K; Anderson Tamara L; de
                    Jong Marion; Garmestani Kayhan; Brechbiel Martin W; Kvols
                    Larry K
CORPORATE SOURCE:   College of Pharmacy, University of New Mexico, Albuquerque,
                    New Mexico 87131-0001, USA.. jpnoren@unm.edu
CONTRACT NUMBER:    M01 RR00997 (NCRR)
SOURCE:             Clinical cancer research : an official journal of the
                    American Association for Cancer Research, (2006 Feb 1) Vol.
```

12, No. 3 Pt 1, pp. 897-903.
Journal code: 9502500. ISSN: 1078-0432.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: NONMEDLINE; IN-PROCESS; NONINDEXED; Priority Journals
ENTRY DATE: Entered STN: 20060210
Last Updated on STN: 20060216

=> s actinium
L4 93 ACTINIUM

=> s l4 adn l2
MISSING OPERATOR L4 ADN
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l4 and l2
L5 0 L4 AND L2

=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.34	1.55

STN INTERNATIONAL LOGOFF AT 11:11:44 ON 29 MAR 2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1642BJF

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
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NEWS  9   JAN 30  Saved answer limit increased
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                  added to TULSA
NEWS 11   FEB 21  STN AnaVist, Version 1.1, lets you share your STN AnaVist
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NEWS 12   FEB 22  Status of current WO (PCT) information on STN
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NEWS 17   FEB 28  TOXCENTER reloaded with enhancements
NEWS 18   FEB 28  REGISTRY/ZREGISTRY enhanced with more experimental spectral
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NEWS EXPRESS  FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
              CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
              V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT
              http://download.cas.org/express/v8.0-Discover/

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NEWS LOGIN    Welcome Banner and News Items

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specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 11:18:17 ON 29 MAR 2006

=> file medline
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'MEDLINE' ENTERED AT 11:18:26 ON 29 MAR 2006

 FILE LAST UPDATED: 28 MAR 2006 (20060328/UP).  FILE COVERS 1950 TO DATE.

 On December 11, 2005, the 2006 MeSH terms were loaded.

 The MEDLINE reload for 2006 is now (26 Feb.) available.  For details
 on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>).
 See also:

    http://www.nlm.nih.gov/mesh/
    http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
    http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

 OLDMEDLINE is covered back to 1950.
```

```
 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2006 vocabulary.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s bismuth
L1        5212 BISMUTH

=> s actinium
L2          93 ACTINIUM

=> s DMPS or DMSA
           356 DMPS
          1428 DMSA
             1 DMSAS
          1429 DMSA
                 (DMSA OR DMSAS)
L3        1693 DMPS OR DMSA

=> s l3 and l2
L4           1 L3 AND L2

=> s l3 adn l1
MISSING OPERATOR L3 ADN
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l3 and l1
L5           7 L3 AND L1

=> kidney or renal or nephro?
KIDNEY IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s kidney or renal or nephro?
        487300 KIDNEY
         55703 KIDNEYS
        500183 KIDNEY
                 (KIDNEY OR KIDNEYS)
        356537 RENAL
            23 RENALS
        356545 RENAL
                 (RENAL OR RENALS)
         94617 NEPHRO?
L6      638909 KIDNEY OR RENAL OR NEPHRO?

=> s l6 adn l5
MISSING OPERATOR L6 ADN
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l6 and l5
L7           5 L6 AND L5

=> d ibib 1-5

L7   ANSWER 1 OF 5     MEDLINE on STN
ACCESSION NUMBER:   2005285089     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 15930310
TITLE:              Efforts to control the errant products of a targeted in
```

vivo generator.
AUTHOR: Jaggi Jaspreet Singh; Kappel Barry J; McDevitt Michael R; Sgouros George; Flombaum Carlos D; Cabassa Catalina; Scheinberg David A
CORPORATE SOURCE: Molecular Pharmacology and Chemistry Program, Memorial Sloan-Kettering Cancer Center, New York, New York 10021, USA.
CONTRACT NUMBER: P01-33049 (NCI)
R01-CA 55349
SOURCE: Cancer research, (2005 Jun 1) Vol. 65, No. 11, pp. 4888-95.
Journal code: 2984705R. ISSN: 0008-5472.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 20050603
Last Updated on STN: 20050729
Entered Medline: 20050728

L7 ANSWER 2 OF 5 MEDLINE on STN
ACCESSION NUMBER: 2002145123 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11877598
TITLE: Fanconi's syndrome, acute renal failure, and tonsil ulcerations after colloidal bismuth subcitrate intoxication.
AUTHOR: Hruz Petr; Mayr Michael; Low Roland; Drewe Jurgen; Huber Gerold
CORPORATE SOURCE: Department of Internal Medicine Clinic B, Division of Transplantation Immunology and Nephrology, University Hospital Basel, Basel, Switzerland.. petrhruz@hotmail.com
SOURCE: American journal of kidney diseases : the official journal of the National Kidney Foundation, (2002 Mar) Vol. 39, No. 3, pp. E18.
Journal code: 8110075. E-ISSN: 1523-6838.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200203
ENTRY DATE: Entered STN: 20020307
Last Updated on STN: 20020320
Entered Medline: 20020319

L7 ANSWER 3 OF 5 MEDLINE on STN
ACCESSION NUMBER: 97021921 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8868281
TITLE: Evaluation of dithiol chelating agents as potential adjuvants for anti-IL-2 receptor lead or bismuth alpha radioimmunotherapy.
AUTHOR: Jones S B; Tiffany L J; Garmestani K; Gansow O A; Kozak R W
CORPORATE SOURCE: Department of Otolaryngology-Head and Neck Surgery, National Naval Medical Center, Bethesda, MD 20889, USA.
SOURCE: Nuclear medicine and biology, (1996 Feb) Vol. 23, No. 2, pp. 105-13.
Journal code: 9304420. ISSN: 0969-8051.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199701
ENTRY DATE: Entered STN: 19970219
Last Updated on STN: 19970219

Entered Medline: 19970130

L7 ANSWER 4 OF 5 MEDLINE on STN
ACCESSION NUMBER: 92260104 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1583409
TITLE: Development of a therapeutic procedure for bismuth intoxication with chelating agents.
AUTHOR: Slikkerveer A; Jong H B; Helmich R B; de Wolff F A
CORPORATE SOURCE: Toxicology Laboratory, University Hospital Leiden, The Netherlands.
SOURCE: The Journal of laboratory and clinical medicine, (1992 May) Vol. 119, No. 5, pp. 529-37.
Journal code: 0375375. ISSN: 0022-2143.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199206
ENTRY DATE: Entered STN: 19920626
Last Updated on STN: 19970203
Entered Medline: 19920618

L7 ANSWER 5 OF 5 MEDLINE on STN
ACCESSION NUMBER: 90215354 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2323603
TITLE: Bismuth induced encephalopathy caused by tri potassium dicitrato bismuthate in a patient with chronic renal failure.
AUTHOR: Playford R J; Matthews C H; Campbell M J; Delves H T; Hla K K; Hodgson H J; Calam J
CORPORATE SOURCE: Department of Medicine, Royal Postgraduate Medical School, Hammersmith Hospital, London.
SOURCE: Gut, (1990 Mar) Vol. 31, No. 3, pp. 359-60.
Journal code: 2985108R. ISSN: 0017-5749.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199005
ENTRY DATE: Entered STN: 19900622
Last Updated on STN: 19970203
Entered Medline: 19900515

=> d ibib abs 4

L7 ANSWER 4 OF 5 MEDLINE on STN
ACCESSION NUMBER: 92260104 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1583409
TITLE: Development of a therapeutic procedure for bismuth intoxication with chelating agents.
AUTHOR: Slikkerveer A; Jong H B; Helmich R B; de Wolff F A
CORPORATE SOURCE: Toxicology Laboratory, University Hospital Leiden, The Netherlands.
SOURCE: The Journal of laboratory and clinical medicine, (1992 May) Vol. 119, No. 5, pp. 529-37.
Journal code: 0375375. ISSN: 0022-2143.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199206
ENTRY DATE: Entered STN: 19920626

Last Updated on STN: 19970203
Entered Medline: 19920618

AB Although bismuth poisoning is still a rare phenomenon, the increasing use of bismuth-containing drugs warrants a systematic approach to the treatment of bismuth overdose. An effective method of enhancing the elimination of toxic amounts of bismuth from the body has not been reported. Therefore we performed a study to select the best chelator to treat bismuth poisoning. Dimercaprol (BAL), meso-2,3-dimercaptosuccinic acid (DMSA), D,L-2,3-dimercapto-propane-I-sulfonic acid (DMPS), D-penicillamine (D-PEN), N-acetyl-D,L-penicillamine (Ac-PEN), thiopronine (TP), sodium-calcium edetate (EDTA) and deferoxamine (DFO) were tested with an in vitro model of equilibrium dialysis and an in vivo model of rats poisoned with bismuth. The rats (n = 6 per substance tested) were treated with the chelators in intraperitoneal doses of 250 mumol/kg.day for 3 consecutive days. Afterward, tissue and blood samples were collected. Bismuth concentrations were determined with electrothermal atomic absorption spectrometry in serum, buffer, urine, blood, brain, kidney, liver, spleen, and bone. Using in vitro results, we constructed a ranking of chelating agents; it appeared not to predict the in vivo results. The dithiol compounds (DMPS, DMSA and BAL) were effective in most organs (especially in kidney and liver) resulting in a higher elimination of bismuth in urine by DMPS and BAL. BAL was the only chelator effective in lowering brain bismuth concentrations, whereas treatment with EDTA resulted in increased brain bismuth levels. For D-PEN and DFO, no effects could be demonstrated. For clinical practice, DMSA and DMPS may well be the chelators of choice; the application of BAL should be reserved for very severe cases of poisoning because of its own toxicity.

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=> d his

     (FILE 'HOME' ENTERED AT 11:18:17 ON 29 MAR 2006)

     FILE 'MEDLINE' ENTERED AT 11:18:26 ON 29 MAR 2006
L1          5212 S BISMUTH
L2            93 S ACTINIUM
L3          1693 S DMPS OR DMSA
L4             1 S L3 AND L2
L5             7 S L3 AND L1
L6        638909 S KIDNEY OR RENAL OR NEPHRO?
L7             5 S L6 AND L5

=> s l2 adn l6
MISSING OPERATOR L2 ADN
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> s l2 and l6
L8            12 L2 AND L6

=> s accum? or reten?
        227213 ACCUM?
         80245 RETEN?
L9      303767 ACCUM? OR RETEN?

=> s l9 and l8
L10            4 L9 AND L8

=> s tox
L11          646 TOX
```

```
=> s tox?
L12     543991 TOX?

=> s l12 and l10
L13          1 L12 AND L10

=> d ibib

L13  ANSWER 1 OF 1     MEDLINE on STN
ACCESSION NUMBER:   2005576806     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 16253811
TITLE:              Biodistribution of 225Ra citrate in mice: retention
                    of daughter radioisotopes in bone.
AUTHOR:             Kennel Stephen J; Lankford Trish; Garland Marc; Sundberg
                    John P; Mirzadeh Saed
CORPORATE SOURCE:   Division of Life Sciences, Oak Ridge National Lab, Oak
                    Ridge, TN 37831, USA.. kennelsj@ornl.gov
SOURCE:             Nuclear medicine and biology, (2005 Nov) Vol. 32, No. 8,
                    pp. 859-67.
                    Journal code: 9304420. ISSN: 0969-8051.
PUB. COUNTRY:       England: United Kingdom
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200603
ENTRY DATE:         Entered STN: 20051029
                    Last Updated on STN: 20060310
                    Entered Medline: 20060309


=> d l10 ibib 1-4

L10  ANSWER 1 OF 4     MEDLINE on STN
ACCESSION NUMBER:   2005576806     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 16253811
TITLE:              Biodistribution of 225Ra citrate in mice: retention
                    of daughter radioisotopes in bone.
AUTHOR:             Kennel Stephen J; Lankford Trish; Garland Marc; Sundberg
                    John P; Mirzadeh Saed
CORPORATE SOURCE:   Division of Life Sciences, Oak Ridge National Lab, Oak
                    Ridge, TN 37831, USA.. kennelsj@ornl.gov
SOURCE:             Nuclear medicine and biology, (2005 Nov) Vol. 32, No. 8,
                    pp. 859-67.
                    Journal code: 9304420. ISSN: 0969-8051.
PUB. COUNTRY:       England: United Kingdom
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200603
ENTRY DATE:         Entered STN: 20051029
                    Last Updated on STN: 20060310
                    Entered Medline: 20060309

L10  ANSWER 2 OF 4     MEDLINE on STN
ACCESSION NUMBER:   2005285089     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 15930310
TITLE:              Efforts to control the errant products of a targeted in
                    vivo generator.
AUTHOR:             Jaggi Jaspreet Singh; Kappel Barry J; McDevitt Michael R;
                    Sgouros George; Flombaum Carlos D; Cabassa Catalina;
                    Scheinberg David A
CORPORATE SOURCE:   Molecular Pharmacology and Chemistry Program, Memorial
                    Sloan-Kettering Cancer Center, New York, New York 10021,
                    USA.
```

CONTRACT NUMBER: P01-33049 (NCI)
R01-CA 55349
SOURCE: Cancer research, (2005 Jun 1) Vol. 65, No. 11, pp. 4888-95.
Journal code: 2984705R. ISSN: 0008-5472.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 20050603
Last Updated on STN: 20050729
Entered Medline: 20050728

L10 ANSWER 3 OF 4 MEDLINE on STN
ACCESSION NUMBER: 2001045501 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10941530
TITLE: Evaluation of 225Ac for vascular targeted radioimmunotherapy of lung tumors.
AUTHOR: Kennel S J; Chappell L L; Dadachova K; Brechbiel M W; Lankford T K; Davis I A; Stabin M; Mirzadeh S
CORPORATE SOURCE: Life Sciences Division, Oak Ridge National Laboratory, Tennessee 37831-6101, USA.. kennelsj@ornl.gov
CONTRACT NUMBER: HL09718 (NHLBI)
SOURCE: Cancer biotherapy & radiopharmaceuticals, (2000 Jun) Vol. 15, No. 3, pp. 235-44.
Journal code: 9605408. ISSN: 1084-9785.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200012
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001206

L10 ANSWER 4 OF 4 MEDLINE on STN
ACCESSION NUMBER: 67184081 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6029424
TITLE: The effects of desferrioxamine on the retention of actinide elements in the rat.
AUTHOR: Taylor D M
SOURCE: Health physics, (1967 Feb) Vol. 13, No. 2, pp. 135-40.
Journal code: 2985093R. ISSN: 0017-9078.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 196709
ENTRY DATE: Entered STN: 19900101
Last Updated on STN: 19990129
Entered Medline: 19670913

=> d ibib abs l10 4

L10 ANSWER 4 OF 4 MEDLINE on STN
ACCESSION NUMBER: 67184081 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6029424
TITLE: The effects of desferrioxamine on the retention of actinide elements in the rat.
AUTHOR: Taylor D M
SOURCE: Health physics, (1967 Feb) Vol. 13, No. 2, pp. 135-40.
Journal code: 2985093R. ISSN: 0017-9078.
PUB. COUNTRY: United States

```
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        196709
ENTRY DATE:         Entered STN: 19900101
                    Last Updated on STN: 19990129
                    Entered Medline: 19670913


=> d his

     (FILE 'HOME' ENTERED AT 11:18:17 ON 29 MAR 2006)

     FILE 'MEDLINE' ENTERED AT 11:18:26 ON 29 MAR 2006
L1          5212 S BISMUTH
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L5             7 S L3 AND L1
L6        638909 S KIDNEY OR RENAL OR NEPHRO?
L7             5 S L6 AND L5
L8            12 S L2 AND L6
L9        303767 S ACCUM? OR RETEN?
L10            4 S L9 AND L8
L11          646 S TOX
L12       543991 S TOX?
L13            1 S L12 AND L10

=> s francium
L14           12 FRANCIUM

=> s l14 and l6
L15            1 L14 AND L6

=> d ibib

L15  ANSWER 1 OF 1     MEDLINE on STN
ACCESSION NUMBER:   2005285089     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 15930310
TITLE:              Efforts to control the errant products of a targeted in
                    vivo generator.
AUTHOR:             Jaggi Jaspreet Singh; Kappel Barry J; McDevitt Michael R;
                    Sgouros George; Flombaum Carlos D; Cabassa Catalina;
                    Scheinberg David A
CORPORATE SOURCE:   Molecular Pharmacology and Chemistry Program, Memorial
                    Sloan-Kettering Cancer Center, New York, New York 10021,
                    USA.
CONTRACT NUMBER:    P01-33049 (NCI)
                    R01-CA 55349
SOURCE:             Cancer research, (2005 Jun 1) Vol. 65, No. 11, pp. 4888-95.
                    Journal code: 2984705R. ISSN: 0008-5472.
PUB. COUNTRY:       United States
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200507
ENTRY DATE:         Entered STN: 20050603
                    Last Updated on STN: 20050729
                    Entered Medline: 20050728


=> file caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
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FULL ESTIMATED COST                                    7.33       7.54

FILE 'CAPLUS' ENTERED AT 11:25:59 ON 29 MAR 2006
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FILE COVERS 1907 - 29 Mar 2006  VOL 144 ISS 14
FILE LAST UPDATED: 27 Mar 2006  (20060327/ED)

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=> s bismuth
        127908 BISMUTH
             5 BISMUTHS
L16     127908 BISMUTH
                 (BISMUTH OR BISMUTHS)

=> s actinium
          2529 ACTINIUM
             4 ACTINIUMS
L17       2530 ACTINIUM
                 (ACTINIUM OR ACTINIUMS)

=> s DMPS or DMSA
           510 DMPS
           743 DMSA
L18       1149 DMPS OR DMSA

=> s kidney or renal or nephro?
        276002 KIDNEY
         65528 KIDNEYS
        296836 KIDNEY
                 (KIDNEY OR KIDNEYS)
        143848 RENAL
            11 RENALS
        143853 RENAL
                 (RENAL OR RENALS)
         38908 NEPHRO?
L19     337893 KIDNEY OR RENAL OR NEPHRO?

=> s l19 and l17
L20         32 L19 AND L17

=> s l20 and l18
L21          1 L20 AND L18

=> s l20 and adjuvant
         32323 ADJUVANT
         17568 ADJUVANTS
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         40470 ADJUVANT
               (ADJUVANT OR ADJUVANTS)
L22          4 L20 AND ADJUVANT

=> d ibib 1-4

L22  ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        2005:467296  CAPLUS
DOCUMENT NUMBER:         143:93157
TITLE:                   Efforts to Control the Errant Products of a Targeted
                         In vivo Generator
AUTHOR(S):               Jaggi, Jaspreet Singh; Kappel, Barry J.; McDevitt,
                         Michael R.; Sgouros, George; Flombaum, Carlos D.;
                         Cabassa, Catalina; Scheinberg, David A.
CORPORATE SOURCE:        Molecular Pharmacology and Chemistry Program,
                         Sloan-Kettering Cancer Center, New York, NY, 10021,
                         USA
SOURCE:                  Cancer Research (2005), 65(11), 4888-4895
                         CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER:               American Association for Cancer Research
DOCUMENT TYPE:           Journal
LANGUAGE:                English
REFERENCE COUNT:         41    THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22  ANSWER 2 OF 4  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        2004:802241  CAPLUS
DOCUMENT NUMBER:         141:273653
TITLE:                   Methods of protection from toxicity of alpha emitting
                         elements during radioimmunotherapy
INVENTOR(S):             Scheinberg, David; McDevitt, Michael R.; Jaggi,
                         Jaspreet
PATENT ASSIGNEE(S):      USA
SOURCE:                  U.S. Pat. Appl. Publ., 20 pp.
                         CODEN: USXXCO
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.          DATE
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     US 2004191169        A1    20040930    US 2004-806905           20040323
     AU 2004273775        A1    20050331    AU 2004-273775           20040323
PRIORITY APPLN. INFO.:                      US 2003-457503P      P   20030325
                                            WO 2004-US8817       W   20040323

L22  ANSWER 3 OF 4  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        2004:141669  CAPLUS
DOCUMENT NUMBER:         140:216171
TITLE:                   Anti-PSMA antibodies and PSMA multimers for diagnosis,
                         prognosis and therapy of prostatic or non-prostatic
                         cancers
INVENTOR(S):             Maddon, Paul J.; Donovan, Gerald P.; Olson, William
                         C.; Schulke, Norbert; Gardner, Jason; Ma, Dangshe
PATENT ASSIGNEE(S):      USA
SOURCE:                  U.S. Pat. Appl. Publ., 151 pp., Cont.-in-part of Appl.
                         No. PCT/US02/33944.
                         CODEN: USXXCO
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  4
PATENT INFORMATION:
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004033229	A1	20040219	US 2003-395894	20030321
WO 2003034903	A2	20030501	WO 2002-US33944	20021023
WO 2003034903	A3	20031030		
WO 2003034903	B1	20040513		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004161776	A1	20040819	US 2003-695667	20031027
US 2005215472	A1	20050929	US 2004-976352	20041027

PRIORITY APPLN. INFO.:

US 2001-335215P	P	20011023
US 2002-362747P	P	20020307
US 2002-412618P	P	20020920
WO 2002-US33944	A2	20021023
US 2003-395894	A2	20030321
US 2003-695667	A2	20031027

L22 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:334823 CAPLUS

DOCUMENT NUMBER: 138:352761

TITLE: Anti-prostate specific membrane antigen (PSMA) antibodies and fragments for cancer diagnosis and therapy and antitumor screening

INVENTOR(S): Maddon, Paul J.; Donovan, Gerald P.; Olson, William C.; Schuelke, Norbert; Gardner, Jason; Ma, Dangshe

PATENT ASSIGNEE(S): PSMA Development Company, L.L.C., USA

SOURCE: PCT Int. Appl., 238 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003034903	A2	20030501	WO 2002-US33944	20021023
WO 2003034903	A3	20031030		
WO 2003034903	B1	20040513		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2464239	AA	20030501	CA 2002-2464239	20021023
EP 1448588	A2	20040825	EP 2002-802198	20021023

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

JP 2005523683	T2	20050811	JP 2003-537481	20021023
US 2004033229	A1	20040219	US 2003-395894	20030321
US 2004161776	A1	20040819	US 2003-695667	20031027
US 2005215472	A1	20050929	US 2004-976352	20041027

PRIORITY APPLN. INFO.:

US 2001-335215P	P	20011023
US 2002-362747P	P	20020307
US 2002-412618P	P	20020920
WO 2002-US33944	W	20021023
US 2003-395894	A2	20030321
US 2003-695667	A2	20031027

=> d kwic 4

L22 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

IT Immunostimulants
(adjuvants; anti-prostate specific membrane antigen (PSMA) antibodies and fragments for cancer diagnosis and therapy and antitumor screening)

IT Affinity
Angiogenesis inhibitors
Animal
Antitumor agents
Brain, neoplasm
Chromophores
Combinatorial library
Cytolysis
Cytotoxic agents
DNA sequences
Epitopes
Fluorescent substances
Gamma ray
Genetic vectors
Human
Hybridoma
Immunomodulators
Immunostimulants
Kidney, neoplasm
Labels
Luminescent substances
Lung, neoplasm
Mammalia
Mammary gland, neoplasm
Melanoma
Pancreas, neoplasm
Prognosis
Prostate gland, neoplasm
Protein sequences
Sarcoma
Stabilizing agents
Test kits
Testis, neoplasm
Vaccines
(anti-prostate specific membrane antigen (PSMA) antibodies and fragments for cancer diagnosis and therapy and antitumor screening)

IT Kidney, neoplasm
(renal cell carcinoma; anti-prostate specific membrane antigen (PSMA) antibodies and fragments for cancer diagnosis and therapy and antitumor screening)

IT Carcinoma
(renal cell; anti-prostate specific membrane antigen (PSMA) antibodies and fragments for cancer diagnosis and therapy and antitumor screening)

IT 50-07-7, Mitomycin C 51-21-8, 5-Fluorouracil 57-22-7, Vincristine 59-05-2, Methotrexate 147-94-4, ARA-C 148-82-3, Melphalan 305-03-3, Chlorambucil 2998-57-4, Estramustine 10043-66-0, Iodine-131, biological studies 10098-91-6, Yttrium-90, biological studies 11056-06-7, Bleomycin 13233-32-4, Radium-224, biological studies

13967-65-2, Holmium-166, biological studies 13981-25-4, Copper-64, biological studies 14158-31-7, Iodine-125, biological studies 14265-75-9, Lutetium-177, biological studies 14265-85-1, Actinium-225, biological studies 14913-49-6, Bismuth-212, biological studies 15092-94-1, Lead-212, biological studies 15623-45-7, Radium-223, biological studies 15663-27-1, cis-Platinum 15715-08-9, Iodine-123, biological studies 15755-39-2, Astatine-211, biological studies 15757-86-5, Copper-67, biological studies 15765-39-6, Bromine-77, biological studies 15766-00-4, Samarium-153, biological studies 15776-20-2, Bismuth-213, biological studies 23214-92-8, Doxorubicin 33069-62-4, Paclitaxel 33419-42-0, Etoposide 53643-48-4, Vindesine 81284-87-9, Rhodium-86, biological studies 81284-89-1, Rhodium-88, biological studies 83869-56-1, GM-CSF 110417-88-4, Dolastatin 10 113440-58-7, Calicheamicin 114797-28-3, Esperamicin 114977-28-5, Docetaxel 160800-57-7, Auristatin E 161485-77-4, Auristatin PHE
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-prostate specific membrane antigen (PSMA) antibodies and fragments for cancer diagnosis and therapy and antitumor screening)

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=> d his

     (FILE 'HOME' ENTERED AT 11:18:17 ON 29 MAR 2006)

     FILE 'MEDLINE' ENTERED AT 11:18:26 ON 29 MAR 2006
L1          5212 S BISMUTH
L2            93 S ACTINIUM
L3          1693 S DMPS OR DMSA
L4             1 S L3 AND L2
L5             7 S L3 AND L1
L6        638909 S KIDNEY OR RENAL OR NEPHRO?
L7             5 S L6 AND L5
L8            12 S L2 AND L6
L9        303767 S ACCUM? OR RETEN?
L10            4 S L9 AND L8
L11          646 S TOX
L12       543991 S TOX?
L13            1 S L12 AND L10
L14           12 S FRANCIUM
L15            1 S L14 AND L6

     FILE 'CAPLUS' ENTERED AT 11:25:59 ON 29 MAR 2006
L16       127908 S BISMUTH
L17         2530 S ACTINIUM
L18         1149 S DMPS OR DMSA
L19       337893 S KIDNEY OR RENAL OR NEPHRO?
L20           32 S L19 AND L17
L21            1 S L20 AND L18
L22            4 S L20 AND ADJUVANT

=> s diuretic or lasix or furosemide
          15447 DIURETIC
          12832 DIURETICS
          20335 DIURETIC
                (DIURETIC OR DIURETICS)
            175 LASIX
           7226 FUROSEMIDE
              1 FUROSEMIDES
           7226 FUROSEMIDE
                (FUROSEMIDE OR FUROSEMIDES)
L23       25120 DIURETIC OR LASIX OR FUROSEMIDE

=> s l23 and l20
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L24          2 L23 AND L20

=> s l23 and l16
L25         44 L23 AND L16

=> s l25 and l19
L26         13 L25 AND L19

=> s l26 not py>2002
       3691294 PY>2002
L27          9 L26 NOT PY>2002

=> d ibib 1-9

L27  ANSWER 1 OF 9  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2001:338762  CAPLUS
DOCUMENT NUMBER:          134:362292
TITLE:                    Methods of determining individual hypersensitivity to
                          a pharmaceutical agent from gene expression profile
INVENTOR(S):              Farr, Spencer
PATENT ASSIGNEE(S):       Phase-1 Molecular Toxicology, USA
SOURCE:                   PCT Int. Appl., 222 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
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     WO 2001032928        A2    20010510    WO 2000-US30474         20001103
     WO 2001032928        A3    20020725
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:                      US 1999-165398P     P  19991105
                                            US 2000-196571P     P  20000411

L27  ANSWER 2 OF 9  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         1960:120343  CAPLUS
DOCUMENT NUMBER:          54:120343
ORIGINAL REFERENCE NO.:   54:23042c-e
TITLE:                    Comparison of toxicity and diuretic action
                          of bismuth compounds and mersalyl
AUTHOR(S):                Heidenreich, O.; Reus, E.; Schneider, W.
CORPORATE SOURCE:         Univ. Freiburg i. Br., Germany
SOURCE:                   Naunyn-Schmiedebergs Archiv fuer Experimentelle
                          Pathologie und Pharmakologie (1960), 238, 270-80
                          CODEN: AEPPAE; ISSN: 0365-2009
DOCUMENT TYPE:            Journal
LANGUAGE:                 Unavailable

L27  ANSWER 3 OF 9  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         1960:120342  CAPLUS
DOCUMENT NUMBER:          54:120342
ORIGINAL REFERENCE NO.:   54:23042b-c
TITLE:                    Site of action of diuretic bismuth
                          compounds
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AUTHOR(S): Heidenreich, O.; Schneider, W.
CORPORATE SOURCE: Univ. Freiburg i. Br., Germany
SOURCE: Naunyn-Schmiedebergs Archiv fuer Experimentelle Pathologie und Pharmakologie (1960), 238, 258-69
CODEN: AEPPAE; ISSN: 0365-2009
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

L27 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1960:120341 CAPLUS
DOCUMENT NUMBER: 54:120341
ORIGINAL REFERENCE NO.: 54:23042a-b
TITLE: Diuresis with water-soluble organic bismuth compounds in dogs
AUTHOR(S): Heidenreich, O.; Schneider, W.
CORPORATE SOURCE: Univ. Freiburg i. Br., Germany
SOURCE: Naunyn-Schmiedebergs Archiv fuer Experimentelle Pathologie und Pharmakologie (1960), 238, 245-57
CODEN: AEPPAE; ISSN: 0365-2009
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

L27 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1937:8307 CAPLUS
DOCUMENT NUMBER: 31:8307
ORIGINAL REFERENCE NO.: 31:1095e-g
TITLE: Actions of diuretic drugs and changes in metabolites in edematous patients
AUTHOR(S): Stockton, A. B.
SOURCE: Archives of Internal Medicine (1936), 58, 891-900
CODEN: AIMDAP; ISSN: 0003-9926
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

L27 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1931:11684 CAPLUS
DOCUMENT NUMBER: 25:11684
ORIGINAL REFERENCE NO.: 25:1289i,1290a
TITLE: Diuretic action of cacodylate of bismuth
AUTHOR(S): Besnier, A.
SOURCE: Journal de Pharmacie et de Chimie (1930), 11, 465-78
CODEN: JPHCA9; ISSN: 0368-3591
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

L27 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1930:54021 CAPLUS
DOCUMENT NUMBER: 24:54021
ORIGINAL REFERENCE NO.: 24:5860i
TITLE: Comparative diuretic actions of bismuth, digitalis and theophylline; changes in blood and urinary metabolites in edema
AUTHOR(S): Stockton, A. B.
SOURCE: Proceedings of the Society for Experimental Biology and Medicine (1930), 27, 721-2
CODEN: PSEBAA; ISSN: 0037-9727
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

L27 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1928:33359 CAPLUS
DOCUMENT NUMBER: 22:33359
ORIGINAL REFERENCE NO.: 22:3932b-c

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TITLE:                    Bismuth as a diuretic
AUTHOR(S):                Mehrtens, H. G.; Hanzlik, P. J.; Marshall, D. C.;
                          Brown, N. S.
SOURCE:                   JAMA, the Journal of the American Medical Association
                          (1928), 91, 223-5
                          CODEN: JAMAAP; ISSN: 0098-7484
DOCUMENT TYPE:            Journal
LANGUAGE:                 Unavailable

L27  ANSWER 9 OF 9  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         1923:14213  CAPLUS
DOCUMENT NUMBER:          17:14213
ORIGINAL REFERENCE NO.:   17:2325g-h
TITLE:                    Diuretic action of bismuth;
                          mechanism of this action
AUTHOR(S):                Blum, Leon
SOURCE:                   Comptes Rendus des Seances de la Societe de Biologie
                          et de Ses Filiales (1923), 88, 461-3
                          CODEN: CRSBAW; ISSN: 0037-9026
DOCUMENT TYPE:            Journal
LANGUAGE:                 Unavailable


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     (FILE 'HOME' ENTERED AT 11:18:17 ON 29 MAR 2006)

     FILE 'MEDLINE' ENTERED AT 11:18:26 ON 29 MAR 2006
L1          5212 S BISMUTH
L2            93 S ACTINIUM
L3          1693 S DMPS OR DMSA
L4             1 S L3 AND L2
L5             7 S L3 AND L1
L6        638909 S KIDNEY OR RENAL OR NEPHRO?
L7             5 S L6 AND L5
L8            12 S L2 AND L6
L9        303767 S ACCUM? OR RETEN?
L10            4 S L9 AND L8
L11          646 S TOX
L12       543991 S TOX?
L13            1 S L12 AND L10
L14           12 S FRANCIUM
L15            1 S L14 AND L6

     FILE 'CAPLUS' ENTERED AT 11:25:59 ON 29 MAR 2006
L16       127908 S BISMUTH
L17         2530 S ACTINIUM
L18         1149 S DMPS OR DMSA
L19       337893 S KIDNEY OR RENAL OR NEPHRO?
L20           32 S L19 AND L17
L21            1 S L20 AND L18
L22            4 S L20 AND ADJUVANT
L23        25120 S DIURETIC OR LASIX OR FUROSEMIDE
L24            2 S L23 AND L20
L25           44 S L23 AND L16
L26           13 S L25 AND L19
L27            9 S L26 NOT PY>2002

=> s l23 and l20
L28            2 L23 AND L20

=> d ibib 1-2

L28  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2006 ACS on STN
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ACCESSION NUMBER: 2005:467296 CAPLUS
DOCUMENT NUMBER: 143:93157
TITLE: Efforts to Control the Errant Products of a Targeted In vivo Generator
AUTHOR(S): Jaggi, Jaspreet Singh; Kappel, Barry J.; McDevitt, Michael R.; Sgouros, George; Flombaum, Carlos D.; Cabassa, Catalina; Scheinberg, David A.
CORPORATE SOURCE: Molecular Pharmacology and Chemistry Program, Sloan-Kettering Cancer Center, New York, NY, 10021, USA
SOURCE: Cancer Research (2005), 65(11), 4888-4895
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:802241 CAPLUS
DOCUMENT NUMBER: 141:273653
TITLE: Methods of protection from toxicity of alpha emitting elements during radioimmunotherapy
INVENTOR(S): Scheinberg, David; McDevitt, Michael R.; Jaggi, Jaspreet
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 20 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004191169	A1	20040930	US 2004-806905		20040323
AU 2004273775	A1	20050331	AU 2004-273775		20040323
PRIORITY APPLN. INFO.:			US 2003-457503P	P	20030325
			WO 2004-US8817	W	20040323

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COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	44.51	52.05

FILE 'PCTFULL' ENTERED AT 11:30:48 ON 29 MAR 2006
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FILE LAST UPDATED: 3 JAN 2006 <20060103/UP>
MOST RECENT UPDATE WEEK: 200552 <200552/EW>

FILE LAST UPDATED (FULLTEXT) 28 MAR 2006 <20060328/UPTX>
MOST RECENT UPDATE WEEK: 200612
FILE COVERS 1978 TO DATE

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>>> UPDATING OF BIBLIOGRAPHIC DATA DELAYED DUE TO DELIVERY FORMAT CHANGES <<<

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    BECOME AVAILABLE <<<

=> file dissab
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                               1.16      53.21

FILE 'DISSABS' ENTERED AT 11:31:00 ON 29 MAR 2006
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KIND OR LOST PROFITS OR OTHER CLAIMS RELATED TO THE LICENSED
MATERIALS OR THEIR USE.

=> s bismuth
L29        1289 BISMUTH

=> s diuretic or DMSA or DMPS
            263 DIURETIC
            162 DIURETICS
            386 DIURETIC
                  (DIURETIC OR DIURETICS)
             37 DMSA
             32 DMPS
L30         452 DIURETIC OR DMSA OR DMPS

=> s l30 and l29
L31           0 L30 AND L29

=> s actinium
L32          18 ACTINIUM

=> s kidney or renal or nephro?
           5647 KIDNEY
            966 KIDNEYS
           6148 KIDNEY
                  (KIDNEY OR KIDNEYS)
           4211 RENAL
              4 RENALS
           4213 RENAL
                  (RENAL OR RENALS)
            982 NEPHRO?
L33        9161 KIDNEY OR RENAL OR NEPHRO?

=> s l33 and l32
L34           0 L33 AND L32

=> s l33 and l29
L35           5 L33 AND L29

=> d ibib 1-5
```

L35 ANSWER 1 OF 5 DISSABS COPYRIGHT (C) 2006 ProQuest Information and Learning Company; All Rights Reserved on STN
ACCESSION NUMBER: 1999:58066 DISSABS Order Number: AAIC719405 (not available for sale by UMI)
TITLE: DEVELOPMENT OF RADIOLABELED MONOCLONAL ANTIBODY CONSTRUCTS CAPABLE OF TRANSPORTING HIGH RADIATION DOSE INTO CANCER CELLS (BISMUTH, HUM195, IODINATION)
AUTHOR: NIKULA, TUOMO [DR.PHIL.]
CORPORATE SOURCE: JYVASKYLAN YLIOPISTO (FINLAND) (0979)
SOURCE: Dissertation Abstracts International, (1998) Vol. 60, No. 3C, p. 616. Order No.: AAIC719405 (not available for sale by UMI). UNIVERSITY OF JYVASKYLA, SEMINAARINK. 15, FIN-40100 JYVASKYLA, FINLAND. 45 pages. ISBN: 951-39-0120-3.
DOCUMENT TYPE: Dissertation
FILE SEGMENT: DAI
LANGUAGE: English

L35 ANSWER 2 OF 5 DISSABS COPYRIGHT (C) 2006 ProQuest Information and Learning Company; All Rights Reserved on STN
ACCESSION NUMBER: 91:11615 DISSABS Order Number: AAR9130604
TITLE: CISPLATIN NEPHROTOXICITY, PROTECTIVE STRATEGIES, AND KIDNEY METAL INTERACTIONS AT NORMOTHERMIC AND HYPERTHERMIC TEMPERATURES (NORMOTHERMIC TEMPERATURES)
AUTHOR: DEWOSKIN, ROBERT SHELLEY [PH.D.]; RIVIERE, JIM E. [advisor]
CORPORATE SOURCE: NORTH CAROLINA STATE UNIVERSITY (0155)
SOURCE: Dissertation Abstracts International, (1991) Vol. 52, No. 5B, p. 2512. Order No.: AAR9130604. 164 pages.
DOCUMENT TYPE: Dissertation
FILE SEGMENT: DAI
LANGUAGE: English
ENTRY DATE: Entered STN: 19921118
Last Updated on STN: 19921118

L35 ANSWER 3 OF 5 DISSABS COPYRIGHT (C) 2006 ProQuest Information and Learning Company; All Rights Reserved on STN
ACCESSION NUMBER: 87:13513 DISSABS Order Number: AAR8720924
TITLE: INVESTIGATIONS INTO THE MECHANISM OF ACTION OF THE TOXIC SESQUITERPENE LACTONES, HELENALIN AND HYMENOXON
AUTHOR: MERRILL, JILL CHRISTINE [PH.D.]
CORPORATE SOURCE: TEXAS A&M UNIVERSITY (0803)
SOURCE: Dissertation Abstracts International, (1987) Vol. 48, No. 6B, p. 1615. Order No.: AAR8720924. 156 pages.
DOCUMENT TYPE: Dissertation
FILE SEGMENT: DAI
LANGUAGE: English
ENTRY DATE: Entered STN: 19921118
Last Updated on STN: 19921118

L35 ANSWER 4 OF 5 DISSABS COPYRIGHT (C) 2006 ProQuest Information and Learning Company; All Rights Reserved on STN
ACCESSION NUMBER: 87:10878 DISSABS Order Number: AAR8716575
TITLE: RADIOLABELED ANTIBODY IN TUMOR IMAGING AND THERAPY: IODINE AND RADIOMETAL CHELATES
AUTHOR: BERG, WENDIE TERESE ANDERSON [PH.D.]
CORPORATE SOURCE: THE JOHNS HOPKINS UNIVERSITY (0098)
SOURCE: Dissertation Abstracts International, (1987) Vol. 48, No. 5B, p. 1310. Order No.: AAR8716575. 265 pages.
DOCUMENT TYPE: Dissertation
FILE SEGMENT: DAI
LANGUAGE: English
ENTRY DATE: Entered STN: 19921118
Last Updated on STN: 19921118

L35 ANSWER 5 OF 5 DISSABS COPYRIGHT (C) 2006 ProQuest Information and Learning Company; All Rights Reserved on STN

ACCESSION NUMBER: 80:11760 DISSABS Order Number: AAR8021652
TITLE: THE ULTRASTRUCTURAL DELINEATION OF THE LAMINA RARA EXTERNA MEMBRANE IN THE GLOMERULAR BASEMENT MEMBRANE OF NORMAL AND NEPHROTIC RATS, MICE AND HUMANS
AUTHOR: PILIA, PATRICIA ANN [PH.D.]
CORPORATE SOURCE: MEDICAL UNIVERSITY OF SOUTH CAROLINA (0122)
SOURCE: Dissertation Abstracts International, (1980) Vol. 41, No. 4B, p. 1320. Order No.: AAR8021652. 303 pages.
DOCUMENT TYPE: Dissertation
FILE SEGMENT: DAI
LANGUAGE: English
ENTRY DATE: Entered STN: 19921118
Last Updated on STN: 19921118

=> d kwic 1

L35 ANSWER 1 OF 5 DISSABS COPYRIGHT (C) 2006 ProQuest Information and Learning Company; All Rights Reserved on STN

TI DEVELOPMENT OF RADIOLABELED MONOCLONAL ANTIBODY CONSTRUCTS CAPABLE OF TRANSPORTING HIGH RADIATION DOSE INTO CANCER CELLS (BISMUTH, HUM195, IODINATION)

AB . . . of HuM195 to CHX-A-DTPA resulted in the attachment of up to 10 ligand molecules per antibody, and labeling efficiency with Bismuth-213 was typically over 90%. After injection into mice, there was no uptake or loss of bismuth to mouse tissues, that do not express antigen or to kidney, which has avidity for free, unbound bismuth. Toxicity of $\sp{213}$Bi-CHX-A-DTPA was evaluated in normal mice with doses from 0.5 to 20 mCi/kg showing no toxicity, but atomic . . $\sp{213}$Bi labeled conjugate showed dose and specific activity dependent killing of HL60 cells.

The results of this thesis indicate that bismuth-213 labeled HuM195 has high potency to specifically kill the target cells without remarkable toxicity to other tissues.

=> d his

(FILE 'HOME' ENTERED AT 11:18:17 ON 29 MAR 2006)

FILE 'MEDLINE' ENTERED AT 11:18:26 ON 29 MAR 2006

L1	5212	S	BISMUTH
L2	93	S	ACTINIUM
L3	1693	S	DMPS OR DMSA
L4	1	S	L3 AND L2
L5	7	S	L3 AND L1
L6	638909	S	KIDNEY OR RENAL OR NEPHRO?
L7	5	S	L6 AND L5
L8	12	S	L2 AND L6
L9	303767	S	ACCUM? OR RETEN?
L10	4	S	L9 AND L8
L11	646	S	TOX
L12	543991	S	TOX?
L13	1	S	L12 AND L10
L14	12	S	FRANCIUM
L15	1	S	L14 AND L6

FILE 'CAPLUS' ENTERED AT 11:25:59 ON 29 MAR 2006

L16	127908	S	BISMUTH
L17	2530	S	ACTINIUM
L18	1149	S	DMPS OR DMSA
L19	337893	S	KIDNEY OR RENAL OR NEPHRO?

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L20          32 S L19 AND L17
L21           1 S L20 AND L18
L22           4 S L20 AND ADJUVANT
L23       25120 S DIURETIC OR LASIX OR FUROSEMIDE
L24           2 S L23 AND L20
L25          44 S L23 AND L16
L26          13 S L25 AND L19
L27           9 S L26 NOT PY>2002
L28           2 S L23 AND L20

     FILE 'PCTFULL' ENTERED AT 11:30:48 ON 29 MAR 2006

     FILE 'DISSABS' ENTERED AT 11:31:00 ON 29 MAR 2006
L29        1289 S BISMUTH
L30         452 S DIURETIC OR DMSA OR DMPS
L31           0 S L30 AND L29
L32          18 S ACTINIUM
L33        9161 S KIDNEY OR RENAL OR NEPHRO?
L34           0 S L33 AND L32
L35           5 S L33 AND L29

=> s dimercapto?
L36          78 DIMERCAPTO?

=> s dithiol
            124 DITHIOL
             51 DITHIOLS
L37         163 DITHIOL
                (DITHIOL OR DITHIOLS)

=> s l37 and l29
L38           1 L37 AND L29

=> d ibib

L38  ANSWER 1 OF 1  DISSABS COPYRIGHT (C) 2006 ProQuest Information and
     Learning Company; All Rights Reserved on STN
ACCESSION NUMBER:   2004:23871  DISSABS   Order Number: AAI3100638
TITLE:              NMR and molecular modeling of the heavy-metal complexes of
                    phytochelatins and the cis/trans isomerization kinetics of
                    proline-containing peptides
AUTHOR:             Spain, Stephen Micheal [Ph.D.]; Rabenstein, Dallas L.
                    [advisor]
CORPORATE SOURCE:   University of California, Riverside (0032)
SOURCE:             Dissertation Abstracts International, (2003) Vol. 64, No.
                    8B, p. 3798. Order No.: AAI3100638. 402 pages.
DOCUMENT TYPE:      Dissertation
FILE SEGMENT:       DAI
LANGUAGE:           English
ENTRY DATE:         Entered STN: 20040429
                    Last Updated on STN: 20040429


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                                                  ENTRY      SESSION
FULL ESTIMATED COST                               10.70       63.91

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MOST RECENT UPDATE WEEK:       200552        <200552/EW>
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FILE LAST UPDATED (FULLTEXT)     28 MAR 2006      <20060328/UPTX>
MOST RECENT UPDATE WEEK:         200612
FILE COVERS 1978 TO DATE

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>>> SDI SEARCHES (ALERTS) WILL BE RESUMED WHEN BIBLIOGRAPHIC DATA
    BECOME AVAILABLE <<<

=> s bismuth
          9440 BISMUTH
             5 BISMUTHS
L39       9442 BISMUTH
                (BISMUTH OR BISMUTHS)

=> s actinium
L40        280 ACTINIUM

=> s kidney or renal or nephro?
         40851 KIDNEY
          7981 KIDNEYS
         43727 KIDNEY
                (KIDNEY OR KIDNEYS)
         26530 RENAL
            33 RENALS
         26538 RENAL
                (RENAL OR RENALS)
          9964 NEPHRO?
L41      56957 KIDNEY OR RENAL OR NEPHRO?

=> s radioimmunother?
L42        679 RADIOIMMUNOTHER?

=> s l42 and l41
L43        499 L42 AND L41

=> s l43 and l40
L44         63 L43 AND L40

=> s diuretic and l44
          2758 DIURETIC
          3995 DIURETICS
          5819 DIURETIC
                (DIURETIC OR DIURETICS)
L45          2 DIURETIC AND L44

=> d ibib 1-2

L45    ANSWER 1 OF 2     PCTFULL   COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER:        2005120588 PCTFULL  ED 20051228  EW 200551
TITLE (ENGLISH):         PEPTIDES DELIVERED TO CELL NUCLEI
TITLE (FRENCH):          PEPTIDES DELIVRES A DES NOYAUX CELLULAIRES
INVENTOR(S):             QUINN, Thomas, P., 5700 Sinclair Road, Columbia, MO
                         65203, US [US, US];
```

YUBIN, Miao, 5141 W. Louisville Ct., Columbia, MO 65203, US [CN, US];
GALLAZZI, Fabio, 4303 Jeana Ct., Columbia, MO 65203, US [IT, US]

PATENT ASSIGNEE(S): THE CURATORS OF THE UNIVERSITY OF MISSOURI, 475 McReynolds Hall, Columbia, MO 65211-2015, US [US, US], for all designates States except US;
QUINN, Thomas, P., 5700 Sinclair Road, Columbia, MO 65203, US [US, US], for US only;
YUBIN, Miao, 5141 W. Louisville Ct., Columbia, MO 65203, US [CN, US], for US only;
GALLAZZI, Fabio, 4303 Jeana Ct., Columbia, MO 65203, US [IT, US], for US only

AGENT: HIGHLANDER, Steven, J.$, Fulbright & Jaworski L.L.P., 600 Congress Avenue, Suite 2400, Austin, TX 78701$, US

LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2005120588	A2	20051222

DESIGNATED STATES
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
RW (ARIPO): BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW
RW (EAPO): AM AZ BY KG KZ MD RU TJ TM
RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LT LU MC NL PL PT RO SE SI SK TR
RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2005-US18700 A 20050526
PRIORITY INFO.: US 2004-60/574,558 20040526

L45 ANSWER 2 OF 2 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 2005028021 PCTFULL ED 20050405 EW 200513
TITLE (ENGLISH): METHODS FOR PROTECTION FROM TOXICITY OF ALPHA EMITTING ELEMENTS DURING RADIOIMMUNOTHERAPY
TITLE (FRENCH): PROCEDE DE PROTECTION CONTRE LA TOXICITE D'ELEMENTS D'EMISSION DE PARTICULES ALPHA LORS DE LA RADIOIMMUNOTHERAPIE

INVENTOR(S): SCHEINBERG, David, 325 Central Park West, New York, NY 10025, US;
McDEVITT, Michael, R., 5644 Netherland Avenue, Bronx, NY 10471, US;
JAGGI, Jaspreet, 1275 York Avenue, New York, NY 10021, US

PATENT ASSIGNEE(S): SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH, 1275 York Avenue, New York, NY 10021, US [US, US], for all designates States except US

AGENT: ADLER, Benjamin, A.$, Adler & Associates, 8011 Candle Lane, Houston, TX 77071$, US

LANGUAGE OF FILING: English
LANGUAGE OF PUBL.: English
DOCUMENT TYPE: Patent
PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2005028021	A2	20050331

DESIGNATED STATES
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO

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                    CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR
                    HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
                    MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO
                    RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ
                    VC VN YU ZA ZM ZW
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      RW (EAPO):    AM AZ BY KG KZ MD RU TJ TM
      RW (EPO):     AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU
                    MC NL PL PT RO SE SI SK TR
      RW (OAPI):    BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
APPLICATION INFO.:  WO 2004-US8817       A  20040323
PRIORITY INFO.:     US 2003-60/457,503      20030325


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     FILE 'MEDLINE' ENTERED AT 11:18:26 ON 29 MAR 2006
L1          5212 S BISMUTH
L2            93 S ACTINIUM
L3          1693 S DMPS OR DMSA
L4             1 S L3 AND L2
L5             7 S L3 AND L1
L6        638909 S KIDNEY OR RENAL OR NEPHRO?
L7             5 S L6 AND L5
L8            12 S L2 AND L6
L9        303767 S ACCUM? OR RETEN?
L10            4 S L9 AND L8
L11          646 S TOX
L12       543991 S TOX?
L13            1 S L12 AND L10
L14           12 S FRANCIUM
L15            1 S L14 AND L6

     FILE 'CAPLUS' ENTERED AT 11:25:59 ON 29 MAR 2006
L16       127908 S BISMUTH
L17         2530 S ACTINIUM
L18         1149 S DMPS OR DMSA
L19       337893 S KIDNEY OR RENAL OR NEPHRO?
L20           32 S L19 AND L17
L21            1 S L20 AND L18
L22            4 S L20 AND ADJUVANT
L23        25120 S DIURETIC OR LASIX OR FUROSEMIDE
L24            2 S L23 AND L20
L25           44 S L23 AND L16
L26           13 S L25 AND L19
L27            9 S L26 NOT PY>2002
L28            2 S L23 AND L20

     FILE 'PCTFULL' ENTERED AT 11:30:48 ON 29 MAR 2006

     FILE 'DISSABS' ENTERED AT 11:31:00 ON 29 MAR 2006
L29         1289 S BISMUTH
L30          452 S DIURETIC OR DMSA OR DMPS
L31            0 S L30 AND L29
L32           18 S ACTINIUM
L33         9161 S KIDNEY OR RENAL OR NEPHRO?
L34            0 S L33 AND L32
L35            5 S L33 AND L29
L36           78 S DIMERCAPTO?
L37          163 S DITHIOL
L38            1 S L37 AND L29
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     FILE 'PCTFULL' ENTERED AT 11:34:13 ON 29 MAR 2006
L39         9442 S BISMUTH
L40          280 S ACTINIUM
L41        56957 S KIDNEY OR RENAL OR NEPHRO?
L42          679 S RADIOIMMUNOTHER?
L43          499 S L42 AND L41
L44           63 S L43 AND L40
L45            2 S DIURETIC AND L44

=> s DMPS and 144
            140 DMPS
L46           1 DMPS AND L44

=> d kwic

L46    ANSWER 1 OF 1     PCTFULL   COPYRIGHT 2006 Univentio on STN
TIEN   METHODS FOR PROTECTION FROM TOXICITY OF ALPHA EMITTING ELEMENTS DURING
       RADIOIMMUNOTHERAPY
TIFR   PROCEDE DE PROTECTION CONTRE LA TOXICITE D'ELEMENTS D'EMISSION DE
       PARTICULES ALPHA LORS DE LA RADIOIMMUNOTHERAPIE
ABEN   Provided herein are methods of reducing nephrotoxicity form at
       least one alpha particle-emitting daughter of actinium-225
       during radioimmunotherapeutic treatment for a
       pathophysiological condition, methods of improving
       radioimmunotherapeutic treatment of cancer and methods of
       increasing the therapeutic index of an actinium-225
       radioimmunoconjugate during treatment of a pathophysiological condition.
       Adjuvants effective for preventing accumulation of<sp>225</sp>Ac
       daughters within the kidneys are administered during treatment
       with an actinium-225 radioimmunoconjugate to reduce
       nephrotoxicity. Examples of adjuvants are chelators, diuretics
       and/or competitive metal blockers.
ABFR   La presente invention a trait a des procedes de reduction de la
       nephrotoxicite derivee d'au moins un produit de filiation
       d'emission de particules alpha d'actinium 225 lors d'un
       traitement de radioimmunotherapie pour une condition
       pathophysiologique, des procedes d'amelioration de traitement de
       radioimmunotherapie du cancer et des procedes d'accroissement de
       l'indice therapeutique d'un conjugue radioimmunologique d'
       actinium 225 lors d'un traitement d'une condition
       pathophysiologique. Des adjuvants efficaces pour la prevention
       d'accumulation de produits de filiation d'actinium 225 dans
       les reins sont administres lors du traitement avec un conjugue
       radioimmunologique d'actinium 225 pour reduire la
       nephrotoxicite. Des exemples d'adjuvants sont des chelateurs,
       des diuretiques et/ou des agents de blocage de metaux par competition.

DETD   Field of the Invention
       The present invention relates generally to the fields of
         radioimmunotherapy and cancer treatment. Specifically, the
       present invention provides
       methods of protecting an individual from toxicity of alpha
       particle-emitting elements
       during radioinimunotherapy.

         Radioimmunotherapyhas advanced tremendouslyin the last 20
       years with
       the development of more sophisticated carriers, as well as of
       radionuclides optimized for
       3
       a particular cancer and therapeutic application (52).
       Radioimmunotherapy (RIT) with
       alpha particle emitting radionuclides is advantageous because alpha
       particles have high
```

LET and short path lengths (50-80[tm) (53-57). Therefore, a. . . . . or be transported to various target organs where they can accumulate and cause radiotoxicity. Bismuth is known to accumulate in the renal cortex (66-69). It has been observed that after injection in mice, francium rapidly accumulates in the kidneys (unpublished result). Francium distribution in the body has not been described due to its 5 short half-life that makes experimental study difficult. . .

Monkeys injected with escalating doses of the untargeted 225 Ac nanogeneratordevelopeda delayed radiationnephropathy manifestingas anemia and renal failure (63). Therefore, a possible hindrance to the development of these agents as safe and effective cancer therapeutics is likely to be their nephrotoxicity. By preventing the 0 renal accumulation of the radioactive daughters or by accelerating their clearance from the body, the therapeutic-index of the 225Ac nanogenerator could be. . . . . Tr have relativelylongerhalf-livesof 45.6min. and4.9 min.,respectively,andtherefore,have the potential to cause radiation damage (61,59). The presence of bismuth-binding, metallothionein-like proteins in the cytoplasm of renal proximal tubular cells, makes the kidney a prime target for the accumulation of free, radioactive bismuth (66-68). Dithiol chelators have been shown to chelate bismuth and enhance. . . . . increase urine output and accelerate the elimination of sodium and potassium in urine, by inhibiting their reabsorption in different segments of the nephron (75). . . . prior art is lacking in methods of using, individually or in combination, adjuvant chelation, diuresis or competitive metal blockade to reduce nephrotoxicity from 225 Ac daughters generated during radioimmunotherapy. The present invention fulfills this 5 long-standing need and desire in the art. . . . treatment of a pathophysiological condition. A phan-nacologically effective dose of at least one adjuvant effective for preventing accumulation of a metal in kidneys and an actinium-225 radioimmunoconjugateto treat the pathophysiologicalconditionare administeredto the individual. Accumulation of an alpha particle-emitting daughter of the actinium-225 5 within the kidneys of the individual is prevented via interaction between the adjuvant and the 225 Ac daughter or the kidney tissue or a combination thereof thereby reducing nephrotoxicity during the radioimmunotherapeutic treatment.

The present invention is directed to related methods of reducing nephrotoxicity in an individual by administering a diuretic alone or in combination with
6
the chelator and administering an actinium-225 radioimmunoconjugate to treat the pathophysiological condition. The chelator scavenges bismuth-213 daughters of actinium The diuretic inhibits reabsorpfion of francium-21 I daughters of actinium-225 within the kidneys to prevent accumulation thereof to reduce nephrotoxicity.

The present invention also is directed to a method of improving radioimmunotherapeutic treatment of cancer in an individual. As described above a pharmacologically effective dose of a chelator and an actinium -225 radioimmunoconjugateare administeredindividually. The chelator scavenges bismuth-213 daughters of the actinium-225 to reduce nephrotoxicity in the individual during treatment thereby increasing the therapeutic index of the actinium-225 to improve the treatment for cancer.

The present invention also is directed to related methods of improving radioimmunotherapeutic treatment of cancer by reducing nephrotoxicity in the individual during treatment thereby increasing the therapeutic index of the actinium-225 to improve
5 the treatment for the cancer. A diuretic alone or in combination with the chelator and an actinium-225radioimmunoconjugateareadministeredindividuallytot heindividual. The chelator functions as described above. The diuretic inhibits renal uptake of francium-21 I daughters within the kidneys to reduce nephrotoxicity
.

The present invention is directed further to a method of increasing the
0 therapeutic index of an actinium-225 radioimmunoconjugate during treatment of a pathophysiological condition in an individual. Renal uptake of at least one alpha particle-emitting daughter of actinium-225 is inhibited whereby nephrotoxicity is reduced during the treatment thereby increasing the therapeutic index of said actinium-225 radioimmunoconjugate. In related methods inhibition of renal uptake of 225 Ac
5 daughters is accomplished by administering a phan-nacologically effective amount of an adjuvant comprising a chelator to scavenge the 225 Ac daughters therewith or of a diuretic to inhibit reabsorption of the 225 Ac daughters within a kidney or of a competitive metal blocker to prevent binding of 21 'Bi within a kidney or a combination of a chelator, a diuretic and the competitive metal blocker.

1 5 Figure 2 depicts the structures of 2,3 dimercapto- I -propanesulfonic acid (DMPS) and meso 2,3 dimercaptosuccinic acid (DMSA)

Figures 3A-3B compare the effect of dithiol chelators on 213 Bi distribution in kidneys and blood. Figure 3A compares reduction in the renal 213 Bi activity by DMPS or DMSA treatment at 6 hours and 72 hours post-injection. The renal 2 0 22 1 Fr activity is unchanged at both time-points. Figure 3B compares the increase in the 213 Bi activity in blood by chelation therapy with DMPS or DMSA at 6 hours and 72 hours post injection. Data are mean (SE). %ID/g = percentage of injected dose per. . .

Figures 4A-4B depict the effect of diuresis or a combination of metal chelation and diuresis on renal 22'Fr and 21 'Bi activity. Figure 4A shows the reduction in the 24 hour renal 22 'Fr and2Bi activities by furosemide and chlorothiazide (CTZ) treatment. Figure 4B shows the reduced renal accumulation of 22 'Fr and 21 'Bi at 24 hours post-injectionby combinationtherapy with DMPS andfurosemideor CTZ. Data are mean (SE). %lD/g = percentage of injected dose per gram of tissue.

8
Figure 5 depicts the effect of competitive metal blockade on 22'Ac daughter distribution and shows the reduction in the renal 213 Bi activity by bismuth subnitrate (BSN) at 6 hours and 24 hours post-injection.

animal to that of a non tumor-bearing mouse of the same strain. Figure 6B shows the reduction in the ratio of kidney to femur activity for 22'Ac and 2 Bi in animals with higher tumor burden. DMPS treatment further reduced the kidney to femur activity ratio for 213 Bi. Figure 6C shows the reduction in the renal 213 Bi activity by the presence of higher tumor burden, and further enhancement of the effect by concomitant DMPS treatment. Error bars denote SE.

Figure 7 depicts the biodistribution of [Ac]Huml95 at 24 hours in DMPS-treated and untreated monkeys.

DETAILED DESCRIPTION OF THE INVENTION

In one embodiment of the present invention there is provided a method of reducing nephrotoxicity in an individual during radioimmunotherapeutic treatment of 2 0 a pathophysiological condition comprising administering a pharmacologically effective dose of at least one adjuvant effective for preventing accumulation of a metal in kidneys; administering an actinium-225 radioimmunoconjugate to treat the pathophysiological condition; and preventing accumulation of alpha particle-emitting daughters of the actinium-225 within the kidneys of the individual via interaction between the adjuvant 2 5 and the 225 Ac daughters or the kidney tissue or a combination thereof thereby reducing nephrotoxicity during the radioimmunotherapeutic treatment. In an aspect of this embodiment the adjuvant(s) may be administeredprior to administering the actinium-225

radioimmunoconjugate with the adjuvant(s) continuing to be administered after the
actinium-225 radioimmunoconjugate.

or bismuth subcitrate. In these aspects the 225 Ac daughter may be bismuth-213, francium-221 or a combination thereof In all aspects the actinium-225 radioimmunoconjugate may comprise an
0 actinium-225 bifimctional chelant and a monoclonal antibody. An example of such a radiolmmunoconjugate is [225 Ac] DOTA-HuM195. Further to all aspects the pathophysiological. . .

5 In a related embodiment there is provided a method of reducing nephrotoxicity in an individual during radioimmunotherapeutic treatment of a pathophysiological condition comprising administering a pharmacologically effective dose of a chelator; administering an actinium-225 radioimmunoconjugate to treat the cancer; and preventing accumulation of bismuth-213 daughters of the actinium-225
0 within the kidneys of the individual by scavenging thereof with the chelator thereby reducing nephrotoxicity during the radioimmunotherapeutic treatment.

Further to this embodiment the method comprises administering a pharmacologicallyeffectivedose of a diureticand preventingaccurnulationof francium-211 daughters of the actinium-225 within the kidneys of the individual by inhibiting
5 reabsorption of francium-211 thereinwith the diuretic thereby reducingnephrotoxicity during the radiolmmunotherapeutic treatment.

In another related embodiment there is provided a method of reducing nephrotoxicity in an individual during radioimmunotherapeutic treatment of a pathophysiological. condition comprising administering a pharmacologically effective
10
dose of a diuretic; administering an actinium-225 radioiminunoconjugate to treat the cancer; and preventing accumulation of francium-21 1 daughters of the actinium-225 within the kidneys of the individualby inhibiting reabsorption of francium-21 I therein with the diuretic thereby reducing nephrotoxicity during the radioimmunotherapeutic treatment.

In another embodiment of the present invention there is provided a method of improving radioimmunotherapeutic treatment of a cancer in an individual, comprising administering a pharmacologically effective dose of a chelator; administering an actinium-225 radioimmunoconjugate; and scavenging bismuth-213
5 daughters of the actinium-225 with the chelator to reduce nephrotoxicity in the individual during the treatmentthereby increasingthe therapeutic index of the actinium-225 to improve the treatment for cancer. Further to this embodiment

there is provided
a method of administering a pharmacologically effective dose of a diuretic; and
inhibiting renal uptake of francium-21 1 daughters of the actinium-225 with the diuretic
0 to reduce nephrotoxicity in the individual during the treatment thereby increasing the
therapeutic index of the actinium-225 to improve the treatment for the cancer.

In a related embodiment there is provided a method of improving radioimmunotherapeutic treatment of cancer in an individual, comprising administering
a pharmacologically effective dose of a diuretic; administering an actinium-225
5 radioimmunoconjugate; and inhibiting renal uptake of francium-211 daughters of the
actinium-225 with the diuretic to reduce
nephrotoxicity in the individual during the
treatment thereby increasing the therapeutic index of the actinium-225 to improve the
treatment for the cancer.

In yet another embodiment there is provided a method of increasing the therapeutic index of an actinium-225 radioimmunoconjugate during treatment of a
pathophysiological condition in an individual comprising inhibiting renal uptake of at
least one alpha particle-emitting daughter of actinium-225 whereby nephrotoxicity is
reduced during the treatment thereby increasing the therapeutic index of the actinium-
225 radioimmunoconjugate.

In an aspect of this embodiment the step of inhibiting renal uptake
comprises administering a pharmacologically effective amount of an adjuvant
comprising a chelator to scavenge the 225 Ac daughters therewith or of a diuretic to
inhibit reabsorption of the 225 Ac daughters within a kidney, or a competitive metal
blocker to prevent binding of said 225 Ac daughters within a kidney or a combination
thereof An example of an 225 Ac daughtz]r scavengedby a chelator is bismuth An
example of an 225 Ac daughter that is inhibited from reabsorbing into the kidneys is
francium-21 1. An example of an 225 Ac daughter that is prevented from binding within
a kidney is 213 Bi.

5 As used herein radioimmunotherapy shall refer to targeted cancer
therapy in which a radionuclide is directed to cancer cells by use of a specific antibody
carrier.

,225Ac nanogenerator shall refer to a nano-scale, in-vivo generator of alpha particle emitting radionuclide daughters, produced by the attachment
of a chelated Actinium-225 atom to a monoclonal antibody.

Provided herein are methods of controlling renal uptake of

actinium-225
daughters generated by an 225 Ac nanogenerator during targeted radioimmunotherapy
which accelerate the clearance of the alpha particle-emitting daughters from the body.

Methods utilizing metal chelation, diuresis, or competitive metal blockade may be used
as adjunct therapies to modify the potential nephrotoxicity of 225 Ac daughters.

Generally, a radioimmunoconjugate comprising an 225 Ac nanogenerator will bind a
targeted tumor cell. Upon binding the actinium-255 decays and delivers the alpha
particle-emitting daughters to the cell to effect treatment. Once the decay cascade
sequence begins, however, thedaughter radiometals. . . are not delivered to the targeted tumor cell. Thus, the daughters are free to accumulate in healthy tissues such as the kidneys causing toxicity.

Chelated metals are protected and are, therefore, safe if detached from the
antibody due to their rapid renal clearance. Chelators such as, but not limited to, the
2 0 dithiol chelators 2,3 dimercapto-1-propane sulfonic acid (DMPS) and meso 2,3-
dimercapto succinic acid (DMSA) shown in Figure 2 or other chelators, e.g.,
ethylenediamine tetra-acetic acid (EDTA), diethylenetriamine pentaacetic acid. . . zinc diethylenetriamine
pentaacetic acid (Zn-DTPA),may be used to prevent the accumulation of free bismuth-
2 5 213 daughters in the patient. Preferably, DMPS is used to chelate bismuth-213
daughters.

The present invention also provides methods of using diuretics to reduce renal uptake of francium-211 daughters and, by extension as a
decay product thereof,
bismuth-213 daughters into the nephron via inhibition of reabsorption of francium-21 I
1 3
through diuresis. Examples of such diuretics are furosemide, chlorthiazide,
hydrochlorothiazide, bumex, or other loop diuretic. Additionally, competitive metal
blockers may be used to compete with bismuth-213 for binding sites in the renal tubular
cells of the kidney. Examples of a nonradioactive bismuth competitor are bismuth
subnitrate or bismuth subcitrate.

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chelators, diuretics or
competitive metal blockers, either individually or in combination, may be used as an
adjunct chelating therapy to modify the nephrotoxicity of bismuth-213 and/or francium-
21 1. Combination of adjuvant therapies results in cumulative effects over individual
1 0 therapies. Therefore, nephrotoxicity is reduced during treatment and larger and more
effective doses of the 225 Ac nanogenerator may be administered. This

may allow. . .

1 5 In the 215Ac nanogenerator the actinium-225 may be stably bound to a monoclonal antibody via a bifunctional chelant, such as a modified 1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetic acid (DOTA) which chelates the actinium-225 while binding it to the monoclonal antibody. Although not limited to such, an example of a radioimmunoconjugate (RIC) suitable for targeted. . .

Additionally,themethodsprovidedhereinaremoreefficaciousinreducing nephrotoxicity in patients with a higher tumor burden. The presence of high levels of a specific target tumor burden caused a decrease. . .

1 4 It is contemplatedthat the adjunct methods describedherein maybe used with targeted 225Ac nanogeneratorradioiniinunotheiapy of pathophysiological conditions benefiting from 225 Ac radioimmunotherapy. For example, the methods presented herein may be used in conjunction with radioimmunotherapeuticmethods for treatment of solid cancers, disseminated cancers and micrometastatic cancers. Thus, leukemias, such as myeloidleukemia,maybenefitfromthisadjunettherapy. Itisfurthercontemplatedthat other diseases or disorders for which 225. . .

. . .

0 The adjuvants of the present invention may be administered prior to the 225 Ac nanogenerator with continued administration after the radioimmunotherapeutic treatment. Routes of administration may be either oral or via injection, such as intravenous injection, and are well known to those of. . .

2 0 The adjuvants are administered in an amount to demonstrate a pharmacological effect, e.g., an amount to reduce nephrotoxicity due to bismuth-213 or francium-21 I accumulation within the kidneys. An appropriate dosage may be a single administered dose or multiple administered doses. The doses administered optimize effectiveness against negative effects of radioimmunotherapeutic treatment. As with all 5 pharmaceuticals, including the 225 Ac nanogenerator described herein, the amount of the adjuvant administered is dependent on. . . the patient, the patient's history, the nature of the cancer treated, i.e., solid or disseminated, the amount and specific activity of the actinium generator construct administered and the duration of the radioimmunotherapeutic treatment.

. . .

typically fall within recommended usage guidelines designated by the package inserts or by the general practice of medicine. For example, doses of DMPS may be in the recommended range of 0. I-Immol/kg/d for the treatment of heavy metal poisoning (64). An example of a dosing regimen

for DMSA
may be about 10 mg/kg every 8 houts, and for DMPS may be
200-1500mg/day in divided
doses.

It is contemplated that use of the adjuvant therapies described herein atoms is substantially high provides for a significant reduction in nephrotoxicity.

Therefore, with a capability to clear free actinium-225 daughters greater than the
daughters generated for a given dose, higher doses of the 225 Ac nanogenerator may be
administeredwithareducedriskofsubsequentnephrotoxicityduringtreatment. A-dose
of about 0.5 [tCi/kg to about 5.0]tCi/kg of actinium-225 may be used to treat the patient.

A representative example is about 1]iCi/kg of actinium However, determination of
dosage of the adjuvants described herein and of the 225Ac nanogenerator is well within the
skill of an artisan. . .

EXAMPLE2
Preparation and qualfty control of actinium-225 labeled antibodies
22'Ac was conjugated to SJ25CI, a mouse anti-human CD19 IgG1 monoclonal antibody (Monoclonal Antibody Core Facility, Memorial Sloan Kettering
Cancer Center). . .

EXANIPLE 3
1 5 Administration of actinium-225 nanogenerator to mice
The mice were anesthetized and then injected intravenously in the retro-orbital venous plexus with 0. 5 ptCi of. . .

EXAAWLE5
Free metal scavenging with DMPS or DMSA
Animals received either 2,3 -dimercapto- .I -propanesulfonic acid (DMP S; I 0 Sigma, St. Louis, MO) or meso-2,3-dimereaptosuccinic acid (DMSA;. .
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Samples of blood taken by cardiac puncture, of kidneys, of liver and of
small intestine were removed. The organs were washed in distilled water, blotted dry on
of 21 2
gauze, weighed,. . .

The renal 213 Bi activity differed significantly between the DMPS or
DMSA treated groups and untreated controls at 6 hours (ANOVA, $p < 0.0001$) and 72
hours (ANOVA, $p < 0.0001$) post-injection. . .

The 6 hour renal 213 Bi activity in the control group was 95.7 + 3.8 %ID/g, which was
reduced to 38.6 5.5 %ID/g and 66.0 + 1.9 %ID/g in DMPS and DMSA treated groups,
respectively. A similar reduction in the renal 213 Bi activity was observed at 72 hours
post-injection of 66.7 + 7.9 %lD/g in controls versus 21.7 I 2.1 %ID/g

and 41.4 7.3 in
DMPS and DMSA treated groups, respectively. DMPS was
significantlymore effective
than DMSA in preventing the renal 213 Bi accumulation at both
time-points (6h, p <
0.001; 72h, p < 0.001). The renal 22 1 Fr activity, however,
was not significantly different
between the experimental groups at either 6 hours (ANOVA, p = 0.39).
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in Figure 3B, the mean blood 213 Bi activity was higher (6h,
ANOVA p< 0.0001; 72h, ANOVA p< 0.0001) in the DMPS (9.2 + 0.5
%ID/g and 5.5
0. I %ID/g at 6 and 72 hours, respectively) and DMSA (5.8 I 0.5. . .
at 6 and 72 hours, respectively. However, the
blood 22'Fractivitywasunalteredbyehelationtherapy(datanotshown).
Similarresults
were seen with calcium-diethylenetriamine pentaacetate (Ca-DTPA), but it
was less
effective than DMPS in reducing the renal 213 Bi
activity (data not shown).
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chelators are transported free or as disulfides with
plasma proteins and non-protein sulfhydryl compounds, e.g. cysteine
(79). In human
2 0 plasma, DMPS has been shown to form non-protein
sulfhydryls to a greater extent at
37%, than DMSA at 8%. Therefore,DMPS is thoughtto be more
reactive in plasma than
DMSA (79). Also, it is believedthat the presence of charged
carboxylgroups impede the
transport. . .

These factors may account for the greater effectiveness of DMPS
in
2 5 reducing the renal 213Bi uptake, as compared to DMSA.
DMPS, being more reactive, is
rapidly oxidized in aqueous solutions to form di-sulfides (81). However,
a loss of
efficacy was not observed when DMPS was administered in
drinking water. This
possibly is due to disulfide reduction in the renal tubular
cells by a glutathione-disulfide
exchange reaction, to yield the parent drug. This effect has been shown
in previous
1 9
studies (79).
.
to cause any significant toxicity due to
the short path length of alpha particles (50). In contrast, the
reduction in the renal 213 Bi
activity is critical to the safety of the 225Ac nanogenerators.

Alternatively, mice received DMPS (1.2 mg/ml in drinking
water) and
either furosemide or CTZ i.p using the same dose schedule as above. The
controls
2 0. . . hours post-injectionwith the labeled antibody and the mean
activity (%ID/g) of 22'Ac] 22 Tr and 213 Bi in blood and
kidneys was calculated for each
experimental group, as described above.

Diuretic therapy prevented the renal accumulation of both 22
'Fr and 2Bi

2 5 (Figure 4A). The 24 hour renal 22 Tr activity differed significantly (ANOVA, p<0.000 1) between the experimental groups (21.9 1.0 %ID/g in controls versus 1 1. 8 0.4 %ID/g and 9.7 0.4 %ID/g in furosemide and CTZ treated groups, respectively). Similarly, the 24 hour renal 213 Bi activity was 3 8.7 1.0 %ID/g in the controls versus 18.3 + 0.6 %ID/g and 18.6 1.6 %ID/g in. . .

Furthermore, the combination of DMPS with a diuretic, furosemide or CTZ, caused a greater reduction of 80% in the renal 213Bi activity than seen with DMPS or diuretics alone (Figures 4A-4B). The 24 hour renal 213 Bi activity was 45.7 1.0 %ID/g in controls versus 10.4 1.0 %ID/g and 10.5 1.5 %ID/g in DMPS + furosemide and DMPS + CTZ groups, respectively (ANOVA, p<0.0001). The reduction in the renal 22 Tr accumulation, however, was similar to that seen with diuretic 1 0 treatment (25.7 + 1.3 %ID/g in controls versus 9.7 0.4 %ID/g and 13.3 + 1.4 %ID/g in DMPS + furosemide and DMPS + CTZ groups, respectively (ANOVA, p<0.0001).

. . .

of the alkali metals, Na+ or K+ or both, although they differ in their potency, mechanism and site of action within the nephron. Furosemide and CTZ act, respectively, in the ascending limb 1 5 of Henle's loop and distal convoluted tubule of the nephron (82). The significant drop in the renal 22 Tr activity with furosemide and CTZ possibly is due to an inhibitionof the renal tubular reabsorption of 22 1 Fr which is an alkali metal and is, therefore, expected to behave like Na' and K]. Since 213 Bi is generated from 22 'Fr, a decrease in the renal 213 Bi ensued. Furthermore, the combinationof DMPS with a diuretic, e.g., furosemide or CTZ, 2 0 resulted in an even greater reduction in renal 213 Bi activity than seen with DMPS or the diuretics alone. The administered doses of furosemide and CTZ were scaled from previously published literature on their ED50 in mice.. . .

. . .

24 hours after 225 Ac nanogenerator injection. The mean %ID/g of 22'Ac] 22 Tr and 213 Bi in blood and kidneys at sacrifice-time was calculated for each experimental group.

Competitive blockade of 213 Bi binding-sites in the renal tubular cells by non-radioactivebismuth resultedin anioderate, but significant,reductionin the renal 2 13 Bi activity at both 6 hour (p = 0.004) and 24 hour (p < 0.0001) time-points (Figure 5).

Renal 21313i activity at 6 and 24 hours post-injectionwas 57.5 2.4 %ID/g and 64.9 1.2 %ID/g, respectively in controls versus 46.1 1.4 %ID/g and 48.2 0.6

%ID/g,
<------User Break------>

22 Tr activity was unaltered
(Figure 5) at either time-point (6 hours, p=O. 1 0; 24 hours, p=0.6 1).

5 EXAMPLE 8
Effect of DMPS on tumor burden
Disseminated human Daudi lymphorna (84) treated with 22'Ac labeled anti-CD19, was used as the model system. SCID mice, 10-12. . . or 7 days growth of tumor, high tumor burden or
0 30 days growth of tumor or high tumor burden + DMPS group or
30 days growth of
tumor and treated with 1.2mg/ml DMPS in drinking water,
starting one day before
injection with 225 Ac nanogenerator. All mice were injected intravenously with 5xlO'
Daudi lymphorna cells. . .

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